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To: WRSP(3) 29 November 1957

From: R-W

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Reference 1: 25X1A Special Technical Report for System V dated 27 September 1957, to [redacted] rom WRSP(3)

The tabulation of a-c generator voltage and frequency as a function of engine power setting was made during ground run-up on the engines. This does not correspond to the in-flight conditions. The alternator is geared to the second stage of the turbine and, therefore, the turbine rotation speed increases in flight because of ram air which is not present during ground run-up.

It is advisable, however, to turn the alternator off during climb and letdown.

In a number of the modification bulletins and instruction manuals, tests are made in the R&D labs using certain pieces of test equipment. The field will not always have these exact pieces of equipment. The field does have enough equipment to make adequate checks. In some cases a little ingenuity is required. In the future, however, we will attempt to correlate the test procedures with the equipment available in the field.

Reference 2: 25X1A Report on System 3 and Test Set dated 29 August 1957 - from [redacted]

Reply to Paragraph 5 of referenced report. 61° C highest observed temperature in flight (at thermostat position). Unit has been operated without failure at 90 C measured at same spot.

Reference 3: 25X1A Special Technical Report on System 1, Field Change No. 2 (undated) from [redacted]

The .15 mfd condenser was added across C-917 to increase the level of the recording current on low pulse repetition rate signals. This should have been added to the field change bulletin.

Miscellaneous: Recently we have received a number of customer rework boards for repair. On the 04 boards we noticed a 400 cycle signal of about 30 millivolts in amplitude on the scale-of-3 gate. After considerable hunting around we found the trouble to be a poor ground condition between the heat sink and the etching ground on the board. The only ground between these two points is made by the screws which secure the board to the heat sink. The tightening of these screws in all cases corrected the malfunction. Similar situations have been encountered on the 05 boards.

25X1A [redacted]

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